

Amendments to the Specification:

Please amend the Specification as follows:

Please delete the paragraph on page 13, line 13 to line 24, and replace it with the following paragraph:

Specifically, mRNA encoding a gene can be isolated from the cell, tissue or organ that expresses proteins to be used in the present invention. The isolation of mRNA is conducted by preparing total RNA using a known method such as the guanidine ultracentrifugation method (Chirgwin, J. M. et al., Biochemistry (1979) 18, 52945299), the AGPC method (Chomzynski, P. and Sacci, N., Anal. Biochem. (1987) 162, 156-159), and then purifying mRNA from the total RNA using the mRNA Purification Kit (Pharmacia) and the like. Alternatively, mRNA can be prepared directly using the ~~QuickPrep~~ **QuickPrep®** mRNA Purification kit (Pharmacia).

Please delete the paragraph on page 29, line 17 to line 23, and replace it with the following paragraph:

Subsequently, the immunoplate is mounted to, for example, the ~~Biomek~~ **Biomek 2000 Biomek 2000®** HTS system (manufactured by Beckman) and the control program of the system is executed to add a test sample containing chimeric anti-HM1.24 antibody, a primary antibody against Chimeric anti-HM1.24 antibody, and a second antibody against the primary antibody.

Please delete the paragraph on page 29, line 24 to line 33, and replace it with the following paragraph:

At this time the delivery of the solution to each well of the immunoplate and the removal thereof can be carried out using the ~~Biomek~~ **Biomek 2000 Biomek 2000®** dispenser (manufactured by Beckman) or the Multipipette 96-well simultaneous dispenser (manufactured by Sagian) as a dispensing instrument. Washing of each well of the immunoplate can also be carried out using the EL404 microplate washer (Bio Tek). Measurement of absorbance can be made using the SPECTRAmax250 plate reader (manufactured by Molecular Devices).

Please delete the paragraph starting on page 38, line 33 and ending on page 39, line 8, and replace it with the following paragraph:

On the other hand, a gene for the extracellular region of HM1.24 antigen was amplified by the PCR method using the Thermal Cycler (manufactured by Perkin Elmer Cetus). Using the cDNA of HM1.24 antigen as a template, a mixture containing 100 pmole of primers shown in SEQ ID NOs: 9 to 10, 10 mM Tris-HC1, pH 8.3, 50 mM KC1, 0.1 mM dNTPs (dATP, dGTP, dCTP, dTTP), 1.5 mM MgCl₂, and 5 units of DNA polymerase ~~Ampli Taq~~ Ampli Taq® (manufactured by Perkin Elmer Cetus) was first denatured at 94°C, and then was subjected to 30 cycles of 94°C for 1 minute, 55°C for 1 minute, and 72°C for 1 minute, and finally incubated at 72°C for 10 minutes.

Please delete the paragraph starting on page 61, line 8 and ending on page 62, line 4, and replace it with the following paragraph:

The Coating Buffer (CB) used was a 100 mmol/L NaHC0₃ solution containing 0.02% NaN₃, the dilution Buffer (DB) used was a 50 mmol/L Tris-HC1, pH 8.1, solution containing 1 mmol/L MgCl₂, 150 mmol/L NaCl, 0.05% Tween 20, 0.02% NaN₃, and 1% BSA, the substrate Buffer (DB) used was 50 mmol/L NaHC0₃, pH 9.8, solution containing 10 mmol/L MgCl₂, and the 0.1% Tween 20/TBS used was TBS (Takara Code T903, Lot 291) containing 0.1% Tween 20. GST. IS-1 (D) was directly immobilized to the ~~Nunc~~ Immuno ~~Nunc~~ Immuno™ Plate Maxi Sorp and the concentration of humanized anti-HM1.24 antibody was determined. GST. IS-1 (D) was diluted with CB and added to the ~~Nunc~~ Immuno ~~Nunc~~ Immuno™ Plate Maxi Sorp at 100 µl/well and immobilized at room temperature for 1 hour. After washing three times at 200 µl/well with 0.1% Tween 20/TBS, DB was added at 200 µl/well, to block, at room temperature for more than 1 hour. As a test sample, humanized anti-HM1.24 antibody diluted with DB was reacted at 100 µl/well at room temperature for 1 hour. Then, after washing three times with 0.1% Tween 20/TBS at 200 µl/well, alkaline phosphatase-labeled goat anti-IgG antibody (Goat anti human IgG chain AP conjugate) (Biosource AH20305, Lot 6202) was reacted at 100 µl/well at room temperature for 1 hour. After washing three times with 0.1% Tween 20/TBS at 200 µl/well, Sigma 104 diluted prepared at 1 mg/ml with SB was added at 100 µl/well and was allowed to develop color at

room temperature for 1 hour. Absorbance at 405 nm-620 nm was determined using the Bio-Rad Model 3550. As a result, an increase in absorbance was obtained, in a dose dependent manner, depending on the concentration of humanized anti-HM1.24 antibody (Figure 19).

Please delete the paragraph starting on page 66, line 25 and ending on page 67, line 2, and replace it with the following paragraph:

Total RNA was prepared according to the guanidine thiocyanate/cesium chloride method from 1×10^8 KPMM2 cells, and mRNA was purified using the ~~Fast Track~~ **FastTrack®** mRNA Isolation Kit (Invitrogen). After synthesizing cDNA from 10 µg of mRNA using NotI/oligo-dT₁₈ (~~Time Saver~~ **TimeSaver®** cDNA Synthesis Kit; Pharmacia Biotech), an EcoRI adapter was ligated thereto. cDNA of 0.7 kbp or greater was fractionated using 1.0% low-melting point agarose gel (Sigma), and digested with NotI. It was then inserted to the EcoRI/NotI site of a pCOS1 expression vector or a AExCell vector (Pharmacia Biotech) to prepare a library (library A) for use in direct cloning (screening by panning) and a library (library B) for use in immunoscreening, respectively.

Please delete the paragraph starting on page 68, line 29 and ending on page 69, line 2, and replace it with the following paragraph:

After blocking, a anti-HM1.24 antibody solution (a 10 µg/ml blocking buffer) was added, incubated at room temperature for 1 hour, and 5,000-fold diluted alkaline phosphatase-conjugated anti-mouse Ig antiserum (~~picoBlue~~ **picoBlue™** Immunoscreening kit; Stratagene) was added, which was further incubated at room temperature for 1 hour. Spots that reacted with the antibody were allowed to develop color with a developing solution (100 mM Tris-HCl, pH 9.5, 100 mM NaCl, 5 mM MgCl₂) containing 0.3 mg/ml nitroblue tetrazolium and 0.15 mg/ml 5-bromo-4-chloro-3-indolyl phosphate.

Please delete the paragraph on page 69, line 24 to line 31, and replace it with the following paragraph:

Furthermore, in order to confirm that the protein encoded by p3.19 indeed binds to anti-HM1.24 antibody, a CHO transformant cell line in which p3.19 has ~~bee~~ been introduced

was established. Thus, after P3.19 clone was introduced into CHO cells by the electroporation method, it was cultured in the presence of 500 µg/ml G418 (GIBCO-30 BRL) to obtain a CHO cell line that expresses HM1.24 antigen.

Please delete the paragraph starting on page 69, line 32 and ending on page 70, line 4, and replace it with the following paragraph:

The cultured cells (1×10^6) were suspended to the FACS buffer (PBS (-) / 2% FCS / 0.1% NaN₃), HM1.24 antibody was added thereto, which was reacted on ice for 30 minutes. After washing twice in the FACS buffer, it was resuspended in a GAM-FITC solution (25 µg/ml in the FACS buffer; Becton Dickinson), and was further reacted on ice for 30 minutes. After washing twice in the FACS buffer, it was resuspended in 600 µl of the FACS buffer for measurement by the ~~FACScan~~ **FACScan™** (Becton Dickinson).

Please delete the paragraphs on page 71, line 11 to page 72, line 9 and replace them with the following paragraphs:

SEQ ID NO: 20 and SEQ ID NO: 1 shows, respectively, show the amino acid sequence (~~SEQ ID NO: 20~~) and the nucleotide sequence of the extracellular domain of soluble HM1.24 antigen protein.

SEQ ID NO: 21 and SEQ ID NO: 2 shows, respectively, show the amino acid sequence (~~SEQ ID NO: 21~~) and the nucleotide sequence of a fusion protein comprising the leader sequence, the FLAG peptide and soluble HM1.24 antigen protein. A sequence comprising Met at position 1 to His at position 18 represents the leader sequence. A sequence comprising Asp at position 20 to Lys at position 27 represents the FLAG peptide. A sequence comprising Gly at position 28 to Thr at position 29 is a linker.

SEQ ID NO: 22 and SEQ ID NO: 3 shows, respectively, show the amino acid sequence (~~SEQ ID NO: 22~~) and the nucleotide sequence of a fusion protein comprising the HA peptide and the soluble HM1.24 antigen protein. A sequence comprising Tyr at position 1 to Ala at position 9 represents the HA peptide. A sequence comprising Gly at position 28 to Thr at position 29 is a linker.

SEQ ID NO: 23 and SEQ ID NO: 4 shows, respectively, show the amino acid sequence (~~SEQ ID NO: 23~~) and the nucleotide sequence of a fusion protein comprising the

HA peptide and the C-terminal-deleted soluble HM1.24 antigen protein. A sequence comprising Tyr at position 1 to Ala at position 9 represents the HA peptide. A sequence comprising Gly at position 28 to Thr at position 29 is a linker.

SEQ ID NO: 24 and SEQ ID NO: 5 shows, respectively, show the nucleotide sequence of the determined CGM/HA and the amino acid sequence (**SEQ ID NO: 24**) of the HA peptide. A sequence comprising Tyr at position 1 to Ala at position 9 represents the HA peptide.

SEQ ID NO: 25 and SEQ ID NO: 6 shows, respectively, show the amino acid sequence (**SEQ ID NO: 25**) and the nucleotide sequence of the determined CGM/HA-HM164. A sequence comprising Met at position 1 to Cys at position 20 represents a leader sequence. A sequence comprising Gly at position 3 to Thr at position 32 is a linker. A sequence comprising Asn at position 33 to Ala at position 151 is the C-terminal-deleted soluble HM1.24 antigen protein.

Please delete the paragraphs on page 72, line 31 to page 73, line 5 and replace them with the following paragraphs:

SEQ ID NO: 26 and SEQ ID NO: 16 shows, respectively, show the amino acid sequence (**SEQ ID NO: 26**) and the nucleotide sequence of human HM1.24 antigen protein expressed on the cell membrane.

SEQ ID NO: 27 and SEQ ID NO: 17 shows, respectively, show the amino acid sequence (**SEQ ID NO: 27**) and the nucleotide sequence of the a version of the L chain V region of humanized anti-HM1.24 antibody.

SEQ ID NO: 28 and SEQ ID NO: 18 shows, respectively, show the amino acid sequence (**SEQ ID NO: 28**) and the nucleotide sequence of the r version of the H chain V region of humanized anti-HM1.24 antibody.

SEQ ID NO: 29 and SEQ ID NO: 19 shows, respectively, show the amino acid sequence (**SEQ ID NO: 29**) and the nucleotide sequence of the s version of the H chain V region of humanized anti-HM1.24 antibody.